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EXAMINER

DEWITTE, CONRAD J

ART UNIT	PAPER NUMBER
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2673

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DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary

Application No.

10/044,095

Applicant(s)

YUEN, SILTEX PETER

Examiner

Conrad J. DeWitte

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 38-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11,22,23,25-31 and 37 is/are rejected.
- 7) ☒ Claim(s) 12-22, 24, and 32-36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 38-41 are withdrawn from further consideration pursuant to 37 C.F.R. § 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in Paper No. 6.

Drawings

2. The drawings are objected to under 37 C.F.R. § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the anti-theft latch comprising a spring mentioned in claims 14, 16, and 34 must be shown or the feature canceled from the claims. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. The numbering of claims is not in accordance with 37 C.F.R. § 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not). In this application, Applicant inadvertently included two sets of claims 21 and 22, throwing off the numbering of all subsequent claims by two.

Misnumbered claims 21-39 been renumbered 23-41.

4. Claim 22 is objected to because of the following informalities: Applicant misspelled “shock” as “chock” in line 4 of the claim. Appropriate correction is required.

5. Claim 33 is objected to under 37 C.F.R. § 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place the claim in proper dependent form, or rewrite the claim in independent form.

The Applicant in claim 32 states: the method of claim 27, further including injecting encapsulation resin through an injection port, defined in said shield, into a security chamber space, such that said anti-theft latch is molded into said encapsulation resin and such that upon setting and curing of said resin, said PCBA cannot readily be disassembled. Claim 33 states: the method of claim 32, further including injecting a set amount of encapsulation [resin]. Necessarily, by injecting encapsulation resin into a security chamber space, as disclosed in claim 32, one is injecting a set amount of encapsulation resin, as disclosed in claim 33, because the total amount of resin that could possibly be injected into the chamber space is limited by the chamber space.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-10, 22, 23, and 27-37 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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8. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “lens” in claims 1, 2, 4, 5, 8, 22, 23, 27-31, and 37 is used by the claim to mean “support plate” while the accepted meaning is “a piece of transparent material (as glass) that has two opposite regular surfaces either both curved or one curved and the other plane and that is used either singly or combined in an optical instrument for forming an image by focusing rays of light.” *Merriam-Webster’s Collegiate Dictionary* 666 (10th ed. 1999). The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-5, and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamagata, U.S. Pat. No. 6,088,024 A further in view of Doering, U.S. Pat. No. 4,812,830 A.

11. Regarding claim 1, Yamagata discloses an apparatus for ruggedizing and securing a touchpad assembly comprising a touchpad having spaced-apart first and second surfaces, to receive a data signal from a user (col. 1, lines 58-63; Fig. 8, elements 20, 30) and to couple said signal to a cable (col. 1, lines 39-57; Fig. 8, elements 11b, 21, 31); a printed circuit board

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assembly (PCBA) having spaced-apart first and second surfaces (col. 6, line 11; Fig. 1, element 3) (such an arrangement is inherent in any PCBA), said PCBA coupled to said cable to receive said data signal from said touchpad (Fig. 1, elements 2, 3) (note connections shown between elements 2 and 3 in the figure). Yamagata fails to disclose a support lens having a first surface upon which said touchpad and said PCBA are disposed; a shield having spaced-apart first and second surfaces, said shield overcovering said touchpad, said cable, and said PCBA, and defining a through opening in said first surface overlying and permitting access to said touchpad; and means for securing said shield to said PCBA to enhance at least one of water-proofing and theft-vulnerability of said apparatus.

Doering does disclose a support lens having a first surface upon which said touchpad and said PCBA are disposed (col. 2, line 32; Fig. 1, element 22); a shield having spaced-apart first and second surfaces, said shield overcovering said touchpad, said cable, and said PCBA, and defining a through opening in said first surface overlying and permitting access to said touchpad (col. 2, lines 40-48, col. 3, lines 32-34; Fig. 1, elements 20, 40); and means for securing said shield to said PCBA to enhance at least one of water-proofing and theft-vulnerability of said apparatus (col. 1, lines 45-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Yamagata and Doering because Yamagata merely discloses a conventional electrical arrangement of a touchpad, while Doering discloses an assembly for use with a touchpad, therefore the combination of these disclosures merely creates a touchpad with a display assembly as disclosed in Doering.

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12. Regarding claim 2, Doering further discloses that said means for securing includes mounting said shield to said support lens. Col. 3, lines 10-11, 42-49; Fig. 2, elements 20, 24.

13. Regarding claim 3, Doering further discloses that mounting is carried out using at least one of screws, nuts, bolts, and rivets. Col. 2, lines 32-39; Fig. 2, element 30.

14. Regarding claim 4, Doering further discloses that said means for securing includes chamber seals to seal and define a security chamber space between portions of said shield, said PCBA, and said support lens. Col. 2, lines 40-48; col. 3, lines 13-16; Fig. 2, element 44.

15. Regarding claim 5, Doering discloses surrounding a flange portion with an "O" ring or other suitable gasket to provide a protective seal for the display and electronic circuit boards. Col. 2, lines 44-48; Fig. 2, element 44. *See* col. 3, lines 13-16. Thus, the disclosure of claim 5, namely that said chamber seals include a plurality of first chamber seals disposed between the second surface of said shield and the first surface of said support lens, around a perimeter of said PCBA is merely a duplication of the parts disclosed in Doering described, *supra*. *See* MPEP § 2144.04 (citing *In re Harza*, 274 F.2d 669; 124 U.S.P.Q. 378 (C.C.P.A 1960)).

16. Regarding claim 8, the discussion regarding claim 5, *supra*, applies equally well to this claim.

17. Claims 6, 7, 9, and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamagata and Doering as applied to claims 1-8 above, and further in view of Xu et al., U.S. Pat. No. 6,089,646 A.

18. Regarding claim 6, neither Yamagata nor Doering disclose that said first chamber seals comprise adhesive material. However, Xu et al. does disclose this feature. Col. 9, line 63-col. 10, line 22. It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to combine the teachings of Yamagata, Doering and Xu et al. because Xu et al. merely discloses one instance of an assembly which provides an effective seal, as required by Doering.

19. Regarding claim 7, neither Yamagata nor Doering disclose that said adhesive material comprises a gasket. However, Xu et al. does disclose this feature. Col. 9, line 63-col. 10, line 22.

20. Regarding claim 9, neither Yamagata nor Doering disclose that said second chamber seals comprise a double-sided adhesive material. However, Xu et al. does disclose this feature. Col. 9, line 63-col. 10, line 22.

21. Regarding claim 10, neither Yamagata nor Doering disclose that said adhesive material comprises a gasket. However, Xu et al. does disclose this feature. Col. 9, line 63-col. 10, line 22.

22. Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamagata and Doering as applied to claim 1 above, and further in view of official notice. Neither Yamagata nor Doering disclose that said means for securing includes an anti-theft latch. However, the Examiner takes official notice that a latch is a well known means for securing briefcases, cabinets, and computer components. See MPEP § 2144.03. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include an anti-theft latch with a touchpad device to prevent the disassembly or destruction of the device by users.

23. Claim 22 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamagata and Doering as applied to claim 1 above, and further in view of Hasegawa, U.S. Pat. No. 6,608,664 B1.

Neither Yamagata nor Doering disclose a shock isolation mounting for said shield, disposed between said second surface of said shield and said first surface of the touchpad; wherein said shock isolation mounting helps retain said touchpad to said support lens. However, Hasegawa does disclose this feature. Fig. 1, elements 33, 35. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Yamagata, Doering and Hasegawa because Hasegawa and Doering both address improving the display of a touchpad. Hasegawa, col. 1, lines 7-14; Doering, col. 1, lines 6-9. Yamagata is an example of a conventional electrical arrangement of a touchpad.

24. Claims 27-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Canova, U.S. Pub. Appl'n No. 2002/0063695 A1 in further view of Yamagata and Doering.

25. Regarding claim 27, Canova discloses a midframe supporting a circuit board which is located underneath a alpha-numeric input device (i.e. a touchpad). ¶ 0042-0044; Fig. 3, elements 106, 225, 235. Applicant claims a supporting a touchpad and a printed circuit board assembly (PCBA) with a lens, such that the touchpad and PCBA lie on a first surface of the lens. However, applicant does not disclose any criticality to the particular arrangement. Clearly, the parts can be placed with respect to one another however desired. Therefore, Canova is found to read on the above portion of the claim because it discloses fixing a PCBA and a touchpad to a supporting member, the placement of the PCBA relative to the touchpad being a matter of choice.

Canova does not disclose coupling a cable between the touchpad and the PCBA; providing a shield having spaced-apart first and second surfaces to cover said touchpad, cable, and PCBA, said shield defining an opening sized to permit accessing said touchpad; and

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providing at least one of a water-proofing enhancement mechanism and an anti-theft mechanism, to secure said shield to said PCBA. However, Yamagata discloses coupling a cable between the touchpad and the PCBA. Fig. 1, elements 2, 3 (note connections between elements 2 and 3).

Furthermore, Doering discloses providing a shield having spaced-apart first and second surfaces to cover said touchpad, cable, and PCBA, said shield defining an opening sized to permit accessing said touchpad (col. 2, lines 40-48, elements 20, 40; col. 1, lines 32-34); and providing at least one of a water-proofing enhancement mechanism and an anti-theft mechanism, to secure said shield to said PCBA (col. 1, lines 45-55).

In addition to the reasons given above for combining the teachings of Yamagata and Doering, it would have been obvious to one of ordinary skill in the art to combine the teachings of Canova, Yamagata and Doering, because Canova is merely an example of a conventional structure for supporting a touchpad and PCBA in an enclosure.

26. Regarding claim 28, Doering further discloses said shield is mounted to said support lens. Col. 3, lines 10-11, 42-49; Fig. 2, elements 20, 24.

27. Regarding claim 29, Doering further discloses defining a sealable security chamber space between portions of said shield, said PCBA, and said support lens, and sealing said space with at least one chamber seal. Col. 2, lines 40-48; col. 3, lines 13-16; Fig. 2, element 44.

28. Regarding claim 30, the discussion regarding claim 5, *supra*, applies equally well to this claim.

29. Regarding claim 31, the discussion regarding claim 5, *supra*, applies equally well to this claim.

30. Claim 37 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Canova, Yamagata, and Doering as applied to claim 27 above, and further in view of Hasegawa.

Canova, Yamagata and Doering fail to disclose providing a shock isolation mount to retain said touchpad to said support lens, said mount being disposed between a second surface of said shield and a first surface of said touchpad. However, Hasegawa does disclose this feature. Fig. 1, elements 33, 35. In addition to the reasons given above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Canova, Yamagata, Doering, and Hasegawa because Hasegawa discloses a touchpad for use in harsh conditions, similar to the current invention. *See* Hasegawa, col. 1, lines 17-30.

Allowable Subject Matter

31. Claims 12-21, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

32. Claims 32-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

33. Claims 32-36 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

34. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Saito et al., U.S. Pat. No. 6,628,074 B1 (disclosing a plasma display device having a reinforcement member)
- Wong et al., U.S. Pat. No. 6,614,423 B1 (disclosing a touch-pad cover protecting against wear, spills and abuse)
- Nishikawa et al., U.S. Pat. No. 6,590,337 B1 (disclosing a sealing structure for a display device)
- Ito et al., U.S. Pat. No. 6,304,251 B1 (disclosing a coordinate input device with a flat cable having two divided flat mounting parts composing divided conductor portions)
- Tamura et al., U.S. Pat. No. 6,137,555 A (disclosing a liquid crystal panel with uniform adhesive layer and method of manufacturing)
- Kasser, U.S. Pat. No. 6,002,389 A (disclosing a touch and pressure sensing method and apparatus)
- Tsumura et al., U.S. Pat. No. 5,990,874 A (disclosing a protective cover for a portable apparatus touch panel)
- Bishop et al., U.S. Pat. No. 5,729,250 A (disclosing a front cover assembly for a touch sensitive device)

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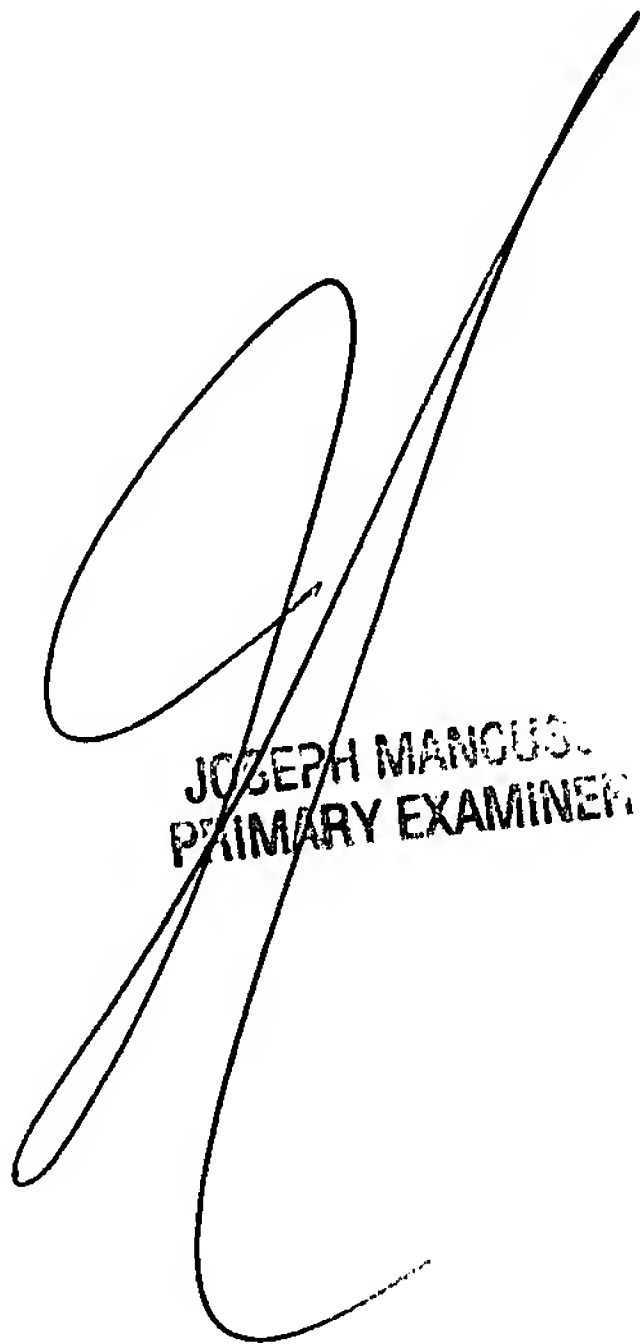
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Conrad J. DeWitte whose telephone number is (703) 305-8626.

The examiner can normally be reached on Monday through Friday, 8 a.m. to 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (703) 305-4938. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


CID


JOSEPH MANCUSO
PRIMARY EXAMINER